

**WORKING CAPITAL MANAGEMENT EFFICIENCY: (STUDY
ON THE TRANSPORTATION SECTOR)**



**Submitted a Partial Fulfillment of the Requirements for Getting
Bachelor Degree of Economic in Economic and Business Faculty**

By:

NUR AIDHA PUTRI HASANI

B10A153007

**MANAGEMENT DOUBLE DEGREE
FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITAS MUHAMMADIYAH SURAKARTA**

2019

APPROVAL PAGE

**WORKING CAPITAL MANAGEMENT EFFICIENCY: (STUDY ON THE
TRANSPORTATION SECTOR)**

PUBLICATION JOURNAL

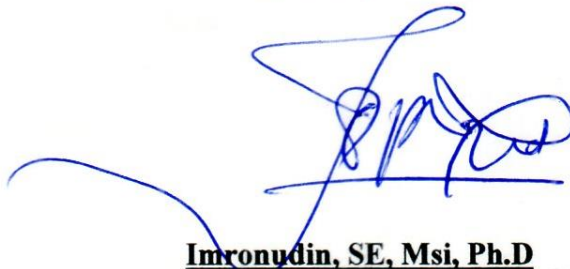
Written by:

NUR AIDHA PUTRI HASANI

B10A153007

Research has been accepted and approved.

Thesis Supervisor,



Imronudin, SE, Msi, Ph.D

NIDN. 0617036902

APPROVAL PAGES

WORKING CAPITAL MANAGEMENT EFFICIENCY: (STUDY ON THE TRANSPORTATION SECTOR)

Written and composed by:

NUR AIDHA PUTRI HASANI

B10A153007

It has been maintained in front of the Board of Examiners

Faculty of Economics and Business




Universitas Muhammadiyah Surakarta

On Friday, December 27, 2019

Declared to meet the requirements

The Board of Examiners:

1. Jati Waskito, Msi.
(Chairman of the Board of Examiners)
2. Imronudin, Ph.D.
(Member I Board of examiners)
3. Kussudyarsana, Ph.D.
(Member II Board of examiners)

()
()
()

Dean



Dr. H. Syamsudin, SE, M.M

NIDN. 017025701

DECLARATION OF AUTHENTICITY

I am truthfully declared that this publication journal has been prepared according to the regulations of University Muhammadiyah Surakarta and has not been submitted in whole or in part for an award in this or any other institution. This public journal is entirely the author's own work and has not been taken from the work of others, except as cited and acknowledge within the text.

If in the future this statement is proven to be violated, I am willing to accept any sanction compying with the determined regulation or its consequence from Universitas Muhammadiyah Surakarta.

Surakarta, January 13, 2020



Nur Aidha Putri Hasani

WORKING CAPITAL MANAGEMENT EFFICIENCY: (STUDY ON TRANSPORTATION SECTOR)

Abstrak

Tujuan utama Manajemen Modal Kerja adalah untuk memastikan pemeliharaan tingkat modal kerja yang memuaskan dengan cara yang akan mencegah ketersediaan modal kerja yang berlebihan atau tidak memadai. Tujuan utama manajemen modal kerja adalah untuk mengajarkan dan menjaga keseimbangan yang optimal antara setiap komponen modal kerja. Studi pendahuluan ini dibuat dengan upaya untuk menganalisis efisiensi Studi manajemen modal kerja di sektor transportasi. Data sekunder berasal dari Bursa Efek Indonesia. Database 31 perusahaan transportasi dipilih dari situs web BEI selama lima tahun periode 2014-2018. Dalam menganalisis efisiensi manajemen modal kerja tiga indeks digunakan dalam penelitian ini yaitu, indeks kinerja manajemen modal kerja (PIWCM), indeks pemanfaatan manajemen modal kerja (UIWCM), dan indeks efisiensi manajemen modal kerja (EIWCM). Hasil penelitian menunjukkan bahwa manajemen modal kerja pada perusahaan sektor transportasi kurang efisien dalam mengelola modal kerja mereka selama periode penelitian ini.

Kata kunci: Manajemen Modal Kerja, Indeks Kinerja, Indeks Pemanfaatan, Indeks Efisiensi, Sektor Transportasi.

Abstract

The main objective of Working Capital Management is to ensure the maintenance of a satisfactory level of working capital in a way that will prevent excessive or inadequate availability of working capital. The main goal of working capital management is to teach and keep an optimized balance between each component of working capital. This preliminary study was made with an attempt to analyze the efficiency of working capital management Study on the transportation sector. The secondary data was derived from Indonesia Stock Exchange. Database of 31 transportation companies are selected from the IDX website for five years period from 2014 - 2018. In analyzing the efficiency of working capital management three indexes was used in this current study namely, performance index of working capital management (PIWCM), utilization index of working capital management (UIWCM), and efficiency index of working capital management (EIWCM). The results reveal that the working capital management on transportation sector company was less efficient in managing their working capital during this study period.

Keywords: Working Capital Management, Performance Index, Utilization Index, Efficiency Index, Transportation Sector.

1. INTRODUCTION

The Indonesian Capital Market is experiencing rapid growth recently, as evidenced by the increasing number of shares transacted and the increasing volume of stock trading. In line with these rapid developments, the need for relevant information in investment decision making in the capital market is also increasing. Capital Market is an indicator of the economic progress of a country and supports the economy of the country concerned (Robert Ang, 1997). Working capital management of a firm has been recognized as an important area in financial management. This field can include decisions about the amount and the combination of current assets and financing them. The process of working capital management includes decisions about a different aspect of cash investment, the maintenance of a certain level of inventories and managing of receivable and payable accounts. The main goal of working capital management is to keep an optimized balance between each component of working capital (Gitmen, 2009).

Working capital management is the ability to manage current assets and in fact effectively and smoothly efficient (Makori & Jagongo, 2013). A similar thing also disclosed endra, & Jagananathan Perumal (2014), working capital management is short term and asset management in fact, the company in the short term where in it related to decision financing assets. The efficient management of working capital is a fundamental part of the overall corporate strategy to create shareholders' value (Nazir and Afza, 2008). Firms are being increasingly cautious in working capital management nowadays. They recognize the contribution of working capital in profit enhancement (Ching, Novazzi and Gerab, 2011), improved management of accounts receivables, inventory payable, account payable (Myers, 2006).

1.1. Background Literature

1.1.1. Working Capital

Working capital is current assets overall owned by the company, or as a fund that should be available to finance the activities of the company's daily operations. While according to Sofyan (2001:288) working capital is current assets fewer debts

in smoothly. To effectively manage working capital, the company needs to direct its attention to four different short-term assets –accounts receivable, inventories, cash and short-term securities (Brealey;Myers;& Allen, 2006pp 813).

1.1.2. Working Capital Management

Working capital management is a key aspect of capital allocation because it has a direct impact on the long-term growth opportunities of firms (Arvidsson & Engman 2013 p.9). Working capital management (WCM) refers to all management decisions and actions that ordinarily influence the size and effectiveness of the working capital(Kaur, 2010). The most important issue in Working Capital Management is the maintaining of liquidity in the day-to-day operations of the firm. This is crucial so as to prevent creditors and suppliers whose claims are due in the short-term from exerting unwarranted pressure on This suggests that, the main objective of Working Capital Management is to ensure the maintenance of a satisfactory level of working capital in a way that will prevent excessive or inadequate availability of working capital (Filbeck and Krueger, 2005).

1.1.1.1 Efficient Of Working Capital Management

The Efficient of working capital management is an important for achieving both liquidity and profitability of an organization. A weak and inefficient Working Capital management leads to tie up funds in idle assets and reduces the liquidity and profitability of an organization (Reddy and Kameswari, 2004).Working capital management must be efficient because it is the key of prevention from liquidity crises and liable for solvency, profitability and survival of the company (Mukhopadhyay, 2007). Efficient working capital management depends upon the planning and controlling of current assets and current liabilities. As it is the most important factor responsible for elimination of risk of failure to meet short term obligations and additionally to avoid excessive investment in the assets (Eljelly, 2004).

1.1.1.2. Transportation Sector

Transportation sector which plays an important role in development of society as well as constitutes the source of many problems like traffic congestion, inefficient land use, noise and air pollution, rapid depletion of non-renewable natural resources, accidents resulting from loss of life and property. (Cirit, 2014).

2. METHOD

This study examines objects of transportation companies listed on the Indonesia Stock Exchange in the 2014-2018 period. study applied descriptive research design using a qualitative approach. According Calderon and Gonzales 1993, “Descriptive research can be defined as a process aimed at collecting, analyzing, classifying and tabulating data about the practice of prevailing conditions, beliefs, processes, trends and causal relationships and then making adequate and accurate interpretations of the data with or without the help of statistical methods”.

Sample criteria generated using 31 transportation sector company. The data used in the form of secondary data which includes financial data from each company. Data is collected at the site www.idx.co.id, journals such as “Working Capital Management Efficiency: A Study on the Small Medium Enterprise in Malaysia”

2.1 Performance Index

Numerically, if performance index of a firm is more than 1, it indicates that the firm managed their working capital efficiently (Apurba, Kurma, Sharma, 2015). Bhattacharya (1997) suggest that to measure the whole efficiency of the working capital management, the first analysis was to calculate the Performance Index of Working Capital Management (PIWCM) using the following model;

$$Performance\ Index = \frac{Is \sum_i \frac{W_{i(t-1)}}{W_{it}}}{N} \quad (1)$$

Where :

Is= Sales Index

Wi = Individual group of current assets

N= Number of current assets group

And, i= 1, 2, 3...N

(t-1) = Previous Years

t = Current years

2.2 Utilization Index

Any increase in current assets that was substantiate with an increase in the sales representing an effective utilization of currents assets (Sharma, 2015). To examine utilization Index of working capital management (UIWCM), the following model was used;

$$UI_{WCM} = \frac{A_{t-1}}{A_t} \quad (2)$$

Where:

A_{t-1} = Previous current assets / Current sales

A_t = current assets / Current sales

2.3 Efficiency Index

Lastly, Bhattacharya (1997) developed the following model to examine the efficiency index of working capital management (EIWCM) which was constructed by multiplying the Performance Index with Utilisation Index.;

$$EI_{WCM} = PI_{WCM} \times UI_{WCM} \quad (3)$$

Where ; Efficiency Index = Performance Index X Utilisation Index

3. RESULT

The Working Capital Management Efficiency helps to avoid financial crises, increase the profitability and enhances the shareholders' wealth. Modern financial management aims at reducing the level of current assets without ignoring the risk of stock outs (Bhattacharya, 1997). The firms that have sustained working capital improvements have outperformed in terms of earnings. In efficiently run firms, cash

runs freely; in others, cash gets trapped in Working Capital, restricting the company's ability to grow. Working Capital is an indicator of good management, as top Working Capital performers have outperformed across all indicators (PwC Survey, 2014).

Table 1. Performance Index, Utilization Index and Efficiency Index

No	company data	PI			UI			EI		
		mean	min	max	mean	min	max	mean	min	max
1	APOL	1.35	0.58	2.82	1.02	0.65	1.2	1.41	0.57	3.14
2	ASSA	0.86	0.51	1.16	0.8	0.64	0.91	0.7	0.33	0.94
3	BBRM	1.65	0.58	3.75	2	0.65	4.99	5.44	0.37	18.69
4	BIRD	1.08	0.57	2.06	1.18	0.64	2.16	1.61	0.44	4.44
5	BLTA	1.99	0.21	5.47	1.7	1.28	2.43	4.28	0.28	13.32
6	BULL	1.04	0.83	1.5	0.85	0.63	1.22	0.94	0.58	1.83
7	CASS	1	0.59	1.39	0.91	0.63	1.3	0.91	0.5	1.32
8	GIAA	0.9	0.68	1.26	0.9	0.73	1.17	0.85	0.56	1.48
9	HITS	0.91	0.57	1.35	0.92	0.69	1.15	0.89	0.39	1.48
10	IATA	0.92	0.65	1.08	1.25	0.84	1.5	1.16	0.8	1.51
11	INDX	5.93	0	23.73	1.24	1.13	1.42	8.44	0	33.78
12	KARW	1.27	0.55	2.47	0.93	0.56	1.6	1.42	0.46	3.94
13	LEAD	0.94	0.43	1.78	1.32	0.39	2.74	1.69	0.17	4.86
14	LRNA	0.77	0.68	0.89	0.95	0.86	1.05	0.74	0.59	0.8
15	MBSS	0.97	0.74	1.19	1.11	0.83	1.58	1.13	0.61	1.88
16	MIRA	0.98	0.78	1.23	1.07	0.97	1.14	1.05	0.82	1.4
17	NELY	0.92	0.69	1.08	0.91	0.76	1.04	0.84	0.53	1.01
18	PORT	0.12	0	0.49	0.18	0	0.72	0.09	0	0.35
19	PTIS	1.04	0.52	1.97	1.2	0.84	1.55	1.29	0.46	2.73
20	RIGS	1.23	0.88	1.51	1.05	0.41	1.75	1.24	0.49	1.66
21	SAFE	0.43	0	1.68	1.3	0.05	3.24	0.78	0	3.13
22	SDMU	1.13	0.7	1.52	2.87	0.09	9	3.9	0.13	13.67
23	SHIP	1.77	0	6.94	0.29	0	0.66	0.92	0	3.59
24	SOCI	1.23	0.57	1.48	0.86	0.7	0.99	1.09	0.4	1.41
25	TAXI	1.24	0.76	2.24	1.12	0.87	1.57	1.3	0.74	1.94
26	TMAS	0.99	0.57	1.28	0.9	0.66	1.12	0.9	0.47	1.44
27	TPMA	0.82	0.63	1.22	0.94	0.71	1.27	0.77	0.45	1.22
28	TRAM	7.81	0	31.1	1.51	0.09	2.97	23.12	0	92.46
29	WEHA	1.09	0.77	1.52	1.42	0.89	2.06	1.7	0.68	3.12
30	WINS	0.99	0.82	1.16	1.23	0.84	1.69	1.25	0.68	1.81
31	SMDR	0.97	0.74	1.31	2.68	0.09	8.65	3.26	0.07	11.31
MEAN		42.9	16.8	102.7	36.3	19.1	65.2	74.6	12.6	232

3.1 Performance Index

Performance Index of Working Capital Management represents the average performance index of various components of current assets. A firm may be said to have managed its working capital efficiently if the proportionate rise in sales

volume is more than the proportionate rise its current assets during a particular time period. Numerically, if performance index of a firm is more than 1, it indicates that the firm managed their working capital efficiently (Sharma, 2015).

3.2 Utilization Index

The Utilization Index of Working Capital Management indicates the degree of utilization of current assets of a company. Any increase in current assets that was substantiated with an increase in the sales representing an effective utilization of current assets (Aparba Kurma Sharma, 2015)

3.3 Efficiency Index

Efficiency index is a measurement of ultimate efficiency level since this index are from performance and utilization index. If the result is greater than 1 show the working capital management are properly managed, but if the result is less than 1 The result thus implies that the selected does not effectively utilize its working capital in generating the sales. Lastly, Bhattacharya (1997) developed the following model to examine the efficiency index of working capital management (EIWCM) which was constructed by multiplying the Performance Index with Utilisation Index.

4. CONCLUSION

4.1 Conclusion

Based on the results of information analysis and discussions that are discussed, is conclude that:

For preliminary analysis, this study only analysed a sample from 31 companies from Indonesia Stock Exchange (IDX) due to completed information shows by the selected sample. The result of this study must be more than 1 to determine the performance, utilization and efficiency level of the companies.

- 1) For performance index of 31 companies, only 15 companies has good performance which indicated by their performance index more than 1.

Those 15 companies manage their working capital efficiently, meanwhile, the rest did not.

- 2) For utilization index there are 17 out of 31 companies which use their current asset efficiently, while the rest 14 companies did not manage well.
- 3) For efficiency index there are 19 out of 31 companies has good efficiency which indicated by their performance index more than 1. Between performance index and utilization index the most affected the value of efficiency index is utilization index.

4.2 Suggestions

Given the limitations in this study, then some suggestions that need to be considered for further research are as follows:

- For better result use a longer observation period of 5 years or more.
- For future research will highlight this issues by taken into consideration a larger sample to represents a wider perspective towards Transportation sector in Indonesia particularly with a longer years observation.
- The study also suggests that a further investigation may be helpful for identifying the forces that govern the nature of inefficiency present in all the firms of transportation industry in terms of Working Capital Management. Future research should investigate generalization of the findings beyond the transportation industry in Indonesia.

Suggestions for companies:

- The data in the company must be more relevant and provide clear information in order to facilitate the research.

REFERENCE

- Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2007). *Microsoft Excel 2007 and Tools for Statistical Analysis. Analysis.*
- Bagh, T., Nazir, M. I., Khan, M. A., Khan, M. A., & Razzaq, S. (2016). The Impact of Working Capital Management on Firms Financial Performance: Evidence from Pakistan. *International Journal of Economics and Financial Issues*, 6(3), 1097–1105. Retrieved from <http://www.econjournals.com>
- Gosh, S. K., & Maji, S. G. (2004). *Working capital management efficiency: A study*

- on the Indian cement industry. Retrieved from https://www.researchgate.net/profile/Santi_Maji/publication/303880208_Working_capital_management_efficiency_A_study_on_the_Indian_cement_industry/links/575a4a4208ae9a9c954f2e84.pdf
- Iftikhar, M. F. (2013). Determinants of working capital management efficiency: Case study of Pakistani automotive and engineering firms listed in Karachi Stock Exchange. *Research Journal of Finance and Accounting*, 4(7), 216–237.
- Iii, B. A. B., Dan, O., & Penelitan, M. (2010). *Bab iii objek dan metode penelitian 3.1*.
- Investigative reporters & editors. (2016). Using Excel for Statistical Analysis. Retrieved from http://ire.org/media/uploads/car2013_tipsheets/excel_stats_nicar2013.pdf
- Islam, Tarikul., Nazneen, S. (2013). Efficiency in Working Capital Management and its Relationship with Profitability: Study on the Engineering Sector in Bangladesh. *A Journal of the Dept. of Finance & Banking*, (June), 1–9.
- Jamil, S. A., Al Ani, M. K., & Al Shubiri, F. N. (2015). The effect of working capital management efficiency on the operating performance of the industrial companies in Oman. *International Journal of Economics and Financial Issues*, 5(4), 897–904.
- Janakiraman, M., & Ramachandran, A. (2006). *The Relationship between Working Capital Management Efficiency and EIT. Managing Global Transitions* (Vol. 7).
- Juan GarcíaTeruel, P., & MartínezSolano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164–177. <https://doi.org/10.1108/17439130710738718>
- Mun, S. G., & Jang, S. C. S. (2015). Working capital, cash holding, and profitability of restaurant firms. *International Journal of Hospitality Management*, 48, 1–11. <https://doi.org/10.1016/j.ijhm.2015.04.003>
- Nzioki, Paul., Kimeli, Stephen., Abudho, Marcella., Nthaiwa, J. (2013). The Effect of Working Capital Management on Profitability of Manufacturing Companies Listed at Nairobi Securities Exchange. *Journal of Business Administration and Management Sciences Research*, 2(3), 30–35.
- Sahib, F. (1997). Efficient Management of Working Capital: a Study of Healthcare Sector in India. *Management Strategies Journa*, (1993), 53–65.
- Sharma, A. K. (2015). Working Capital Management Efficiency: A study on some selected Proprietary Tea Estates in Jorhat District of Assam.
- Vural, G. (2012). Affects of Working Capital Management on Firm ' s Performance: Evidence from Turkey. *International Journal of Economics and Financial Issues*, 2(4), 488–495. <https://doi.org/10.1108/EUM0000000006795>
- Wahieda, F., Azhar, N., & Chin, O. (2016). Working Capital Management Efficiency: A Study on the Small Medium Enterprise in Malaysia. *Procedia Economics and Finance*, 35(October 2015), 297–303. [https://doi.org/10.1016/S2212-5671\(16\)00037-X](https://doi.org/10.1016/S2212-5671(16)00037-X)